

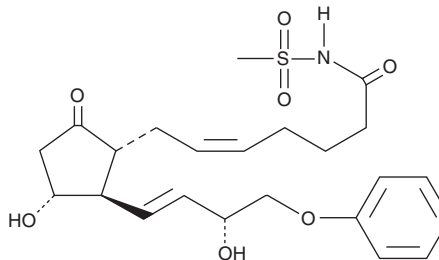
# PRODUCT INFORMATION



## Sulprostone

Item No. 14765

**CAS Registry No.:** 60325-46-4  
**Formal Name:** (5Z)-7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3R)-3-hydroxy-4-phenoxy-1-buten-1-yl]-5-oxocyclopentyl]-N-(methylsulfonyl)-5-heptenamide  
**MF:** C<sub>23</sub>H<sub>31</sub>NO<sub>7</sub>S  
**FW:** 465.6  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 220, 270 nm  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Sulprostone is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of sulprostone in these solvents is approximately 25, 14, and 10 mg/ml, respectively.

Sulprostone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of sulprostone should be diluted with the aqueous buffer of choice. The solubility of sulprostone in PBS (pH 7.2) is approximately 4 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Sulprostone is a metabolism resistant synthetic analog of PGE<sub>2</sub>.<sup>1</sup> It is a selective agonist for EP<sub>3</sub> receptors with a K<sub>i</sub> value of 0.35 nM at the human recombinant EP3-III receptor and an IC<sub>50</sub> of 0.01 μM for the inhibition of PGE<sub>2</sub> binding.<sup>2,3</sup> Sulprostone is a potent stimulator of uterine smooth muscle contractions with high abortifacient activity.<sup>4,5</sup>

### References

1. Schaaf, T.K., Bindra, J.S., Eggler, J.F., *et al.* N-(methanesulfonyl)-16-phenoxyprostaglandincarboxamides: Tissue-selective, uterine stimulants. *J. Med. Chem.* **24**(11), 1353-1359 (1981).
2. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483**(2), 285-293 (2000).
3. Negishi, M., Harazono, A., Sugimoto, Y., *et al.* TEI-3356, a highly selective agonist for the prostaglandin EP3 receptor. *Prostaglandins* **48**(5), 275-283 (1994).
4. Schillinger, E., Prior, G., Speckenbach, A., *et al.* Receptor binding in various tissues of PGE<sub>2</sub>, and sulprostone, a novel PGE<sub>2</sub>-derivative. *Prostaglandins* **18**(2), 293-302 (1979).
5. Krishna, U., Gupta, A.N., Ma, H.K., *et al.* Randomized comparison of different prostaglandin analogues and laminaria tent for preoperative cervical dilation. *Contraception* **34**(3), 237-251 (1986).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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